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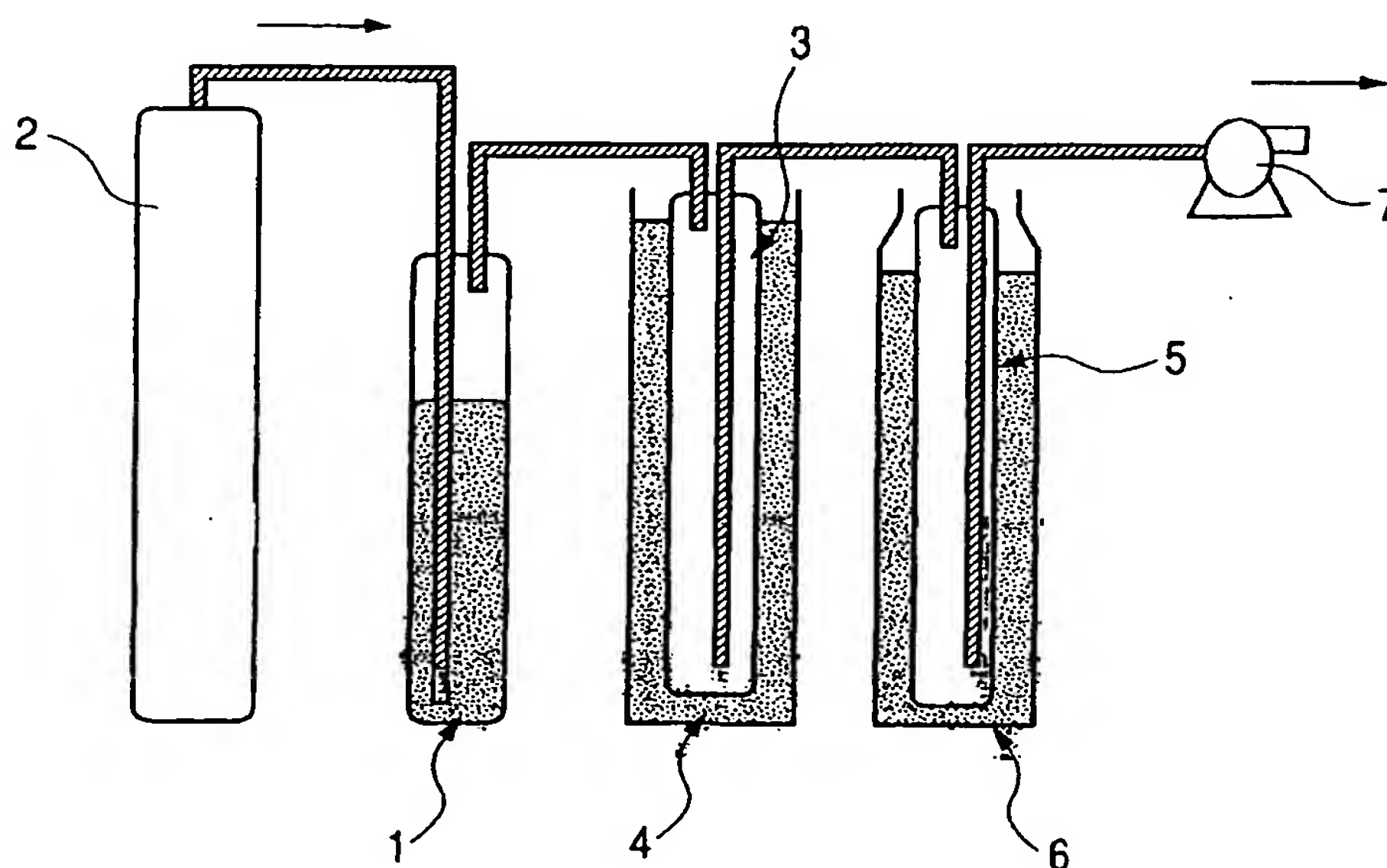
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[Continued on next page]

(54) Title: METHOD FOR PRODUCING A SEALED ²¹⁰Pb-²¹⁰Po ALPHA SOURCE (ALPHA PARTICLE EMITTER) AND APPARATUS THEREOF



(57) Abstract: The present invention provides a method for producing a sealed ²¹⁰Pb-²¹⁰Po α source (α particle emitter) and an apparatus thereof, which can be used as an α particle source for a random pulse generator. The method for producing a sealed ²¹⁰Pb-²¹⁰Po α source (α particle emitter) includes the steps of: collecting ²¹⁰Pb-²¹⁰Po with a ²¹⁰Pb collector using radon collection; precipitating the hydroxides of the collected ²¹⁰Pb-²¹⁰Po and collecting the precipitates by a polycarbonate (PC) filter; dissolving the ²¹⁰Pb-²¹⁰Po hydroxide precipitate to form a ²¹⁰Pb-²¹⁰Po radioactive thin film; and sealing the ²¹⁰Pb-²¹⁰Po radioactive thin film for protection.



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